

CM What is claimed is:

Claim 1. In an electronic still image camera comprising:

an optical lens,

a shutter mechanism operably associated with said lens,

an array of discrete light sensing pixel elements, each pixel element being responsive when said shutter mechanism is operated to incident illumination from a subject image radiating through said lens and shutter mechanism to generate an analog picture information signal corresponding to said subject image,

pixel multiplexing means responsive to each array of pixel elements for separating an output from each pixel element into its primary color components,

analog to digital converter means responsive to the outputs of said pixel multiplexing means for converting said analog signals into corresponding digital data information signals,

digital data compression means for applying
a digital data compression algorithm to said
25 digital data information signals to generate
compressed digital data information signals, and
removably mounted memory means for storing
said compressed digital data information signals,
the improvement comprising operator
30 selectable control means for controlling digital
data format compatability between said compressed
digital data information signals and one of a
plurality of operator selectable types of computer
apparatus.

35 Claim 2. The improved electronic still
image camera of Claim 1 further comprising switch
activated control means for improving the image
signal storage efficiency by selectively
determining the amount of storage of said removable
40 memory means to be associated with storage of each
picture image.

Claim 3. The improved electronic still
camera of Claim 1 further comprising picture image
resolution determining means for selectively
45 determining which of a predetermined set of
compression algorithm parameters are to be applied
to said digital data information signals in
response to an operator activated switch means.

Claim 4. The improved electronic still
50 camera of Claim 3 further comprising record marking
means for generating and recording with each said
image digital data information signals a coded mark
indicating the compression algorithm parameters
utilized in compressing said image digital data
55 information signals.

Claim 5. The improved electronic still
image camera of Claim 1 wherein said removable
memory means comprises digital data diskette means
having thereon a plurality of selectively
60 addressable magnetic sector and track sections for
recording said compressed digital data information
signals.

Claim 6. The improved electronic still
image camera of Claim 1 further comprising memory
65 formatting means operable during the camera
power-up routine to automatically format said
memory means in accordance with one of a plurality
of operator selectable type of computer apparatus.

Claim 7. The improved electronic still
70 image camera of Claim 5 wherein said digital data
compression algorithm of said digital data
compression means is also recorded in its entirety
on said diskette means and further comprising
record marking means for recording a digital coded
75 mark for indicating the compression algorithm
parameters utilized in compressing each said image
digital data information signal.

Claim 8. The improved electronic still
image camera of Claim 1 further comprising audio
80 recording means for simultaneously recording audio
signals associated with each subject image and
memory file correlation means for associating in

85 said memory means the respective storage locations
of said audio signals with its associated image
signals.

90 Claim 9. The improved electronic still
image camera of Claim 3 further comprising record
marking means for recording a unique mark
indicating the compression algorithm parameters
utilized in compressing each said image digital
data information signal.

95 Claim 10. An electronic still image camera
comprising
an optical lens,
a shutter mechanism operably associated
with said lens,
an array of discrete light sensing pixel
elements, each pixel element being responsive when
said shutter mechanism is operated to incident
100 illumination from a subject image radiating through
said lens to generate an analog picture information
signal corresponding to said subject image,

105 pixel multiplexing means responsive to said array of pixel elements for separating an output from each pixel element into its primary color components,

110 analog to digital converter means responsive to the outputs of said pixel multiplexing means for converting said analog signals into corresponding digital data information signals,

115 digital data compression means for applying a digital data compression algorithm to said digital data information signals to generate selectively compressed digital data information signals,

I removably mounted memory means for temporarily storing said compressed digital data information signals,

120 and selectable control means for controlling digital data format compatability between said compressed digital data information signals and one of a plurality of predetermined selectable types of computer apparatus.

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Claim 11. The electronic still image camera of Claim 10 further comprising memory formatting means operable to automatically format said data stored in memory means in accordance with one of a plurality of operator selectable data storage formats.

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Claim 12. The electronic still image camera of Claim 10 further comprising image resolution determining means for selectively determining which of a predetermined set of compression algorithm parameters of said digital data compression means are to be applied to said digital data information signals.

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Claim 13. The electronic still image camera of Claim 12 further comprising record marking means for marking each said image digital data information signal to indicate which one of said predetermined set of compression algorithm parameters were utilized to compress said image digital data information signals.

145 Claim 14. The electronic still image
camera of Claim 10 wherein said removably mounted
memory means comprises digital data diskette means
and further comprising selectable diskette
formatting for automatically formatting said
150 diskette means in accordance with one of a
plurality of operator selectable data format types.

Claim 15. A process for storing an
electronically sensed video image of an electronic
still image camera comprising the steps of:

155 Generating an analog signal corresponding
to the radiant light incident on a predetermined
number of light sensing pixel elements to generate
analog image signals,

160 Converting the analog image signals into
digital electronic information signals wherein a
distinct digital electronic signal corresponds to
the analog image signals corresponding to the
intensity of radiant light falling on the light
sensing pixel elements,

165 Temporarily storing the digital electronic
information signals,

170 Compressing the digital electronic
information signals by applying a data compression
algorithm to sort digital electronic information
signals,

Selecting one of a plurality of
predetermined data formats corresponding to a like
plurality of data formats of a like number of types
of computer apparatus, and

175 Storing said compressed digital electronic
information signals in said predetermined data
format in a digital memory.

Claim 16. The process of Claim 15 further
including the steps of:

180 Detecting the presence or occurrence of one
or more of a predetermined number of conditions,
and

185 Selectively activating said generating of
the analog signal in response to the detection of
said condition.

Claim 17. The process of Claim 15 further including the steps of:

Recording audio signals which relate to said analog image signals, and

190 Storing said audio signals in operable conjunction with said digital information signals such that both the audio and image signals can be retrieved.

195 Claim 18. An electronic video still image camera data format translator comprising:

Input means for producing electronic analog image signals corresponding to the outputs of a plurality of light sensing pixel elements corresponding to a predetermined number of discrete image sensing elements.

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Analog to digital converter means for converting said analog image signals into corresponding digital image signals corresponding to said array of such predetermined number of discrete image sensing elements.

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Buffer means for storing image forms.

Compression selection means for applying a predetermined compression algorithm to said digital image signals.

210 Format selection means for determining one of a number of predetermined data formats in which said compressed digital image is to be stored and

Removable memory means for storing said digital images in said predetermined data format.

215 Claim 19. The electronic still image camera of Claim 10 wherein said pixel multiplexing means further comprises parallel processing switching means for simultaneously parallel processing the output of each such pixel element.

220 Claim 20. The electronic still image camera of Claim 10 further comprising remote activation means for selectively activating said camera.

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